

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017072**Date Inspected:** 29-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Splice 6E/7E weld ID: A1, Face A (QC UT of R-1 Repairs)
- 2). East Line Lifting Rod Penetration Insert Welds (QC UT of R-1 Repairs)
- 3). West Line OBG Field Welding of Drip Edge (SMAW)
- 4). OBG Field Splice 5W/6W weld ID: C1 & C2, Face A (SMAW)

- 1). OBG Field Splice 6E/7E weld ID: A1, Face A (QC UT of R-1 Repairs)

The QAI periodically observed QC Inspector Steve McConnell performing Ultrasonic Testing (UT) of R-1 repairs in the OBG Field Splice 6E/7E weld ID: A1 from the A face. The QAI observed that Mr. McConnell utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the splice weld. The QC technician performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed and Mr. McConnell identified four (4) rejectable indications which were laid out on the weld. Work at this location appeared to be in general compliance with contract documents.

- 2). QC UT of East Line Lifting Rod Penetration Insert Welds (QC UT of R-1 Repairs)

The QAI periodically observed QC Inspector Steve McConnell performing UT of R-1 repairs from the A Face of East Line Lifting Lug Rod Penetration Insert Welds. The QAI periodically observed that the QC Inspectors utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the insert welds.

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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The QC technicians performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed from face A during the QA Inspectors shift at the following locations: PP8.5 E4 welds 1 & 2. The QAI noted that the QC UT results marked on the steel indicated that some of the R-1 repairs in welds 1 & 2 contained UT rejects. The work at this location appeared to be in general compliance with contract documents.

### 3). West Line OBG Field Welding of Drip Edge (SMAW)

The QAI periodically observed AB/F approved welder Eric Sparks (ID 3040) performing fit-up, fillet welding and partial penetration welding per the Shielded Metal Arc Welding (SMAW) process in the 4F (overhead) and 3G (vertical) positions to install drip edge pieces on the counterweight side of the West OBG line on both sides of the Suspender Cable bracket at PP16. See photo below. QC Inspector Mike Johnson was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-F1202 & ABF-WPS-D1.5-1030. Work was in process at this location. The QAI observed that the work appeared to be in general compliance with contract documents.

### 4). OBG Field Splice 5W/6W weld ID: C1 & C2, Face A (SMAW)

The QAI periodically observed AB/F personnel grinding to excavate R-1 repairs in the OBG Field Splice 5W/6W weld ID: C1 & C2. The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding of excavated areas per the SMAW process in the 3G (vertical) position. See photo below. The QAI periodically observed QC Inspector Jesse Cayabyab and later Jim Cunningham were present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000-Repair. The repair welding was in process at this location and the work appeared to be in general compliance with contract documents.



### Summary of Conversations:

Conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammed Fatemi (916) 813 3677, who represents the Office of Structural Materials for your project.

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## WELDING INSPECTION REPORT

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<b>Inspected By:</b>	Madison,Bert	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell,Bill	QA Reviewer
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